TELEPHONY

THE AMERICAN TELEPHONE JOURNAL

INDEX TO VOLUME 62

January 1 to July 1, 1912

TELEPHONY PUBLISHING COMPANY
MONADNOCK BLOCK
CHICAGO

A

Accounting, an argument for comprehensive, (editorial) 753
need of accurate and uniform, by W. F. Goodrich, 247
system approved by Wisconsin Commission, 277
system, report on proposed, comparing Wisconsin with Interstate Commerce plan, by Wm. A. Frame, 215
telephone, suggestions for small companies, 306
Ada, Pioneer Telo. & Teleg. Co., analysis of revenues and expenses in rate case, 147
After the Ball, by J. C. Kelsey, 795
Arkansas Tel. & Tel. Co. proposes to build a system in Little Rock, 464
Attachments to telephones by subscribers, of various devices, (editorial), 581
Automatic exchange, first opened in Great Britain, 719
P. B. X. exchanges at San Francisco, by Gerald Deakin, 491-530
selecting devices and multiple boards, by Alfred H. Dyson, 651
Automobile cost data, 448
truck in construction work, by J. D. Holland, 806
Automobiles and motorcycles discussed at Technical Conference, National Association, 243

B

Bell (A. T. & T. Co.) annual report for 1911 unsatisfactory, 393
(A. T. & T. Co.) annual report for 1911 shows falling off in earnings, 370
(A. T. & T. Co.) annual report for 1911, by J. C. Kelsey, 442
(A. T. & T. Co.) annual report for 1911, complete, 395
(A. T. & T. Co.) being investigated by government, 41
(A. T. & T. Co.) gross increases, surplus decreases, 74
(A. T. & T. Co.) Johnstown, Pa., an example of Bell inconsistency, (editorial) 701
A. T. & T. Co.) petition filed at Washington to dissolve, 101
(A. T. & T. Co.) President Vail's announcement of policy, 40
(Cumberland T. & T. Co.) Louisville attorney handles roughly, 74
(Cumberland T. & T. Co.) Louisville case argued, 337
(Pacific T. & T. Co.) California commission takes issue with, 465
(Pacific T. & T. Co.) Merger at San Francisco to be contested, 413
(Pioneer T. & T. Co.) Analysis of revenue and expenses from Ada, Okla., rate case, 147
Business building, science of, by A. F. Sheldon, 340
securing over the telephone, by Marshal Jewell Bailey, 583
By-Laws, National Independent Telephone Association, 220

C

Cable, loaded, submarine across British Channel, 411
testing, some new stunts in, by B. Yore, 181
Cabling a large office building, by Henry C. Meyer, Jr., and Bassett Jones, Jr., 766
in the Hamburg, Germany, exchange, 645
California Independent Association holds annual convention, 709
Canadian Independents criticise Bell connecting plan, 79
telephones, annual report on, 556
Campaign Bogey, The, by J. C. Kelsey, 234
Cedar pole regions, interesting scenes in the, 369
Cedar woods, the men who do things in the, 540
Cells, dry, standard methods for testing, 688
storage battery end, by A. B. Smith, 708
Chicago Great Western Railway, telephone development on, by W. L. Cook, 677
Illinois Tunnel Co. to expend three million dollars in, 418
Chief operator's relation to the force, the, by Percy Redmund, 632
Cincinnati connection before Ohio Commission (Hamilton Home), 241
Civic Federation to investigate regulation of utilities, 505
expert goes to England, 660
Clearing House, what the Illinois, is accomplishing, 239
development of Illinois, 122
Commission control, operation under, declared success, by J. C. Crowley, 251
Illinois senator argues for, 137
Committee of Seven, Theodore Gary tells of work done by, 42
Common return wire, an experiment on resistance of, by A. B. Smith, 213
Competition and the Blake telephone, at Montreal, (editorial) 295
a commonsense view of, by Colliers' Weekly, (editorial) 581
James J. Hill on, (editorial) 201
what it saves LaCrosse, Wis., 359
Conduits, views of Quebec granite excavation for, 139
Construction, telephone, over surface of reservoir, 49
Convention of National Independent Association, at Chicago, 161
Papers, by J. C. Kelsey, 273
Copper Range Railroad, the dispatching system used on, by W. C. Hamilton, 313
Correcting a great wrong, by J. C. Kelsey, 472
Corvallis, Oregon, Independent given credit for improved service, 15
Cotton Belt Telephone Co., of Georgia, a growing organization, 474
Cuyahoga Telephone statement for 1911, 601

D

Depreciation and replacement of growing telephone plant, by Burke Smith, 526
Desert, running a telephone line across the, by C. L. Endholm, 108
Dielectric conductivity, 525
Directory, Telephony's, of Telephone Industry, 271
Disenchantment of America, The, by J. C. Kelsey, 560
Dispatching, the system used on the Copper Range Railroad, by W. C. Hamilton, 313
Drama—Telephone operator as the center of "The Woman," 52
Druggists' association declares pay stations profitable, by Wilhelm Bodemann, 179
Dry cells, standard methods recommended for testing, 688

E

Earnings—A fair return on utility investments, by Geo. W. Perkins, (editorial), 551
—the proper return on public utility investments, Judge Sanborn, Minnesota rate case, (editorial), 296
Efficiency test of New England Bell, (editorial) 230
Electrolysis of cable sheaths after bonding, 764
Employer's liability act in Michigan, 441
Engineering feat in exchange building in Birmingham, Ala., by Walter Kimball, 553
ethics of railway telephone, (editorial) 551
England, details of taking over of National system, 770
opens first automatic exchange, 719
resume of telephone situation in, 414
government takes over National system, 9
Exchange building, remarkable engineering feat in, Birmingham, Ala., by Walter Kimball, 553
Exclusive toll contract sustained in Ohio, 762

F

Federal supervision of corporations advocated by Herbert Knox Smith, (editorial) 459
Federal Independent Tel. & Tel. Co., annual report for 1911, 331
interests on Rochester board, 204
offer of $100,000 ignored by Rochester company, 233
map showing long distance lines, 300
opens new Salamanca exchange, 799
—story of Geneva exchange, 336
resume of progress of, during 1911, 9
Florida association holds annual meeting, 665
Foreign countries, telephone systems in, 414
Fort William, Ont., system, by J. C. Kelsey, 409
Franchise, public utility law supersedes, 567
Washington court sustains commission's right to abrogate, 496
Future of the Telephone, The, by J. C. Kelsey, 171

G

Galloping Telephony, by L. W. Griswold, 521
Germany, cabling in the exchange at Hamburg, 645
resume of telephone situation in, 415
Government now investigating A. T. & T. Co., 41
ownership of telegraphs, (editorial) 263
ownership of telegraphs, Hitchcock recommends, 69
ownership, Taft opposes, 270

H

Hamilton, Ohio, Bell files brief in interconnection case involving, 712
Home physical connection before commission, 241
Home physical connection case, hearing April 5, 412
Highest telephone station in the world, 56
Hornellsville, N. Y., Independent outstrips Bell, 692

I

Illinois convention held at Peoria, 122
Clearing House increases capital, 363
Clearing House holds first annual meeting, 685
Clearing House plan for annual meeting, 621
Clearing House, what it is accomplishing, by Ed. D. Glandon, 239
Tunnel Co., sale ordered, 206
Tunnel Co., said to be on sound basis, 231
Tunnel Co., move to forfeit franchise, 335
Tunnel Co., Chicago council goes on record regarding, 363
Tunnel Co., three million dollars to be expended by, 418
Independent company at Corvallis, Ore., given credit for improved service, 15
industry, importance and fair future of, by Manford Savage, 655
success at Geneva, N. Y., a story of, by J. D. Holland, 336
Sioux City, buys Bell and New State, 231
Independents, President Vail's announcement of policy towards, 40
Indiana Independent association holds annual convention at Indianapolis, 625
Independent association convention programme, 592
and Indianapolis, conditions in, by N. G. Hunter, 648
Indianapolis, another move toward merger in, 543
merger, various attitudes toward, 744
the situation at, 299
Interconnection, Canadian Independents criticise Bell's plan, 79
Inter-State Independent Tel. & Tel., Aurora, Ill., plans reorganization, 3
Iowa Association holds annual meeting, 422
outline of convention programme and list of exhibitors, 364
Is Anything Wrong? by J. C. Kelsey, 500
Italy, resume of telephone situation in, 415
It is Wise to Yield, by J. C. Kelsey, 103

J

Johnstown, Pa., an example of Bell inconsistency in, (editorial), 701
Tel. Co., annual statement of, 174
June Madness, by J. C. Kelsey, 734

K

Kansas City Independent, Gary interests in control of, 265
Independent association holds annual meeting, 70
Keystone Telephone Co., annual statement for 1911, 205
report for April and four months, 663
report for February and two months, 412
report for November and five months, 4
report for six months, 174

L

LaCrosse, what telephone competition saves, 359
LaCrosse Telephone Co., plans for new exchange, 317
in its new exchange building, 177
report for fiscal year ended June 30, 1911, 47
Last Week's TELEPHONY, by J. C. Kelsey, 71
Legislation, telephone and regulation in South Dakota, by Judge C. B. Kennedy, 145
Let George Do It, by J. C. Kelsey, 7
Lincoln Tel. & Tel. Co., buys out Nebraska Bell in wide field, 37
plan of preliminary organization, 435
merger plans being worked out, 663
official staff changes, 275
purchase of five systems by, approved by commission, 282

NOV 18 1912 Mar 8 133

Little Rock, Ark., Arkansas Tel. & Tel. Co. proposes to build an exchange in, 464
Loaded cable, submarine across British Channel, 411
Loading coils for phantomed long distance lines, by Frank F. Fowle, 10
London, new Avenue exchange, 408
Long distance lines, loading coils for phantomed, by Frank F. Fowle, 10
talk, getting parties together for a, 75
Los Angeles, utilities board equalize rates in, 664
Louisville, Cumberland Bell case at, argued, 338
Home Telephone Company's new branch exchange, 590
loses ouster suit against Cumberland Bell, 622
U. S. Supreme court sustains city's right to regulate rates at, 732
Ludington-Muskegon merger, basis of, 562

M

Madeira, resume of telephone situation in, 416
Maintenance, perils of telephone, in high altitudes, 620
Management, science of, (editorial), 724
Manchuria, resume of telephone situation in, 416
Manitoba, government monopoly rate raise in, (editorial), 2
March of Progress, The, by J. C. Kelsey, 45
Massachusetts, Bell telephone rate investigation, by H. S. Knowlton, 341
Mending Our Ways, by J. C. Kelsey, 333
Mere Size, by J. C. Kelsey, 535
Military Telephony, by L. W. Griswold, 521
Minnesota, Independents urge physical connection law in, 116
Monopoly a menace for centuries, by Geo. H. Earle, 135
—government rate raise in Manitoba, (editorial), 2
natural, Brandeis declares there is no, 5
Monte Rosa Observatory, highest telephone station in the world, 56
Motorcycles and automobiles discussed at National Association Technical Conference, 243
Mount Vernon, Ohio, company holds annual meeting, 709
Multiple boards and automatic selecting devices, by Alfred H. Dyson, 651
Municipal ownership ("Public Ownership") discussed by Sydney Brooks, 587
ownership, Seattle considers, 505
ownership, Tacoma working towards, 562
Success, A, by J. C. Kelsey, 409
system, a unique, at Los Angeles, 431
Muskegon-Ludington merger, basis of, 562

N

National Association, 1912 convention of, (editorial), 159-201
1912 convention, report of, 161
discusses automobiles and motorcycles at technical conference, 243
by-laws of, 220
delegates, visitors and manufacturers at convention, 217
officers for the coming year, 329
phantom circuits discussed at technical conference, 279
programme for 1912 convention, 134
A Word to the Convention, by J. C. Kelsey, 131
proposed technical conference at convention, 73
National Telephone Co., England, liquidation of, 330
taken over by English government, 9
details of taking over by government, 770
National Telephone Corporation, reports on attitude toward sale, 772
"Natural Monopoly," Brandeis declares there is no, 5
Nebraska Bell, Lincoln company buys out, in wide field, 37
Netherlands, resume of telephone situation in, 416
New era in telephony, Manford Savage sees dawn of, 167
New England Bell rate investigation in Massachusetts, by H. S. Knowlton, 341
Newspaper, the telephone, by Arthur F. Colton, 391
New York City, the situation in, 80
Nickel-first telephone—Chicago Bell, by J. C. Kelsey, 103
Northwest, pioneer building in, by John D. Holland, 445
Northwestern Cedarmen's Association, annual convention, 115

O

Ohio decision sustaining exclusive toll contract, 762
how telephone situation is being worked out in, 759
trying to solve the telephone situation in, by S. E. Ward, 207
One Telephone System (Des Moines), by J. C. Kelsey, 683
Operator, telephone as the center of a modern drama, 52
Operator's load line, reading profits and loss from, by H. P. Clausen, 141
speech a part of good service, by J. L. Turner, 17
Overcharge, definitions of storage battery, 76

P

Pay stations, druggists' association declares them profitable, by William Bodemann, 179
Peculiar Sales Methods, by J. C. Kelsey, 710
Phantom circuits discussed at technical conference, 279
Phantomed long distance lines, loading coils for, by Frank S. Fowle, 10
Physical connection, Bell files brief in Hamilton case, 712
bill looking to, introduced in New York, 164
bill passed in Kentucky, 368
case before Washington commission, 175
cases in South Dakota, 77
city council of Childress, Tex., orders, 113
demanded at Trenton, N. J., 114
favored by governor of Kentucky, 50
first hearing in La Crosse case, 50
Hamilton Home case, April, 412
Hamilton Home case before commission, 241
law urged by Minnesota Independents, 116
not obligatory in North Carolina, 802
not obligatory in Tennessee, (editorial), 609
Oklahoma commission hearing on, 282
via P. B. X. discussed in New York state, 281
Pacific Bell opposes commission ruling favoring, in Washington, 758
Senator Byrd's bill requiring, in New York, 242
Washington order for, (editorial), 723
Washington commission orders and Bell agrees—Puget Sound company case, 731
Wisconsin commission orders, between Independents, 624
with Bell asked by California companies, 624
Plans, exchange, for La Crosse company, 317
exchange, for Louisville Home, 590
Pleasing Everybody, by J. C. Kelsey, 203
Pole, joint, construction for public utilities, by J. E. MacDonald, 725
line design west of the Rockies, by A. H. Griswold, 611
Poles used in 1910—75 per cent. bought by wire companies, 311
Portable telephone, extending the use of, (editorial), 643
Portuguese West Africa, resume of telephone situation in, 416
Postal-Telegraph-Cable Co., an opportunity for, (editorial), 429
should get busy, by J. C. Kelsey, 618
complaint of treatment of, by Sidney J. Whyte, of Kosciusko, Miss., 106
alleges Bell diverts telegrams to Western Union, 497
Power system operation, importance of telephone in, by S. R. Edwards, 237
Public convenience and necessity, ruling of Kansas commission on, (editorial), 753
convenience and necessity, Workman case. Parsons, Kans., 301
opinion, the power of, (editorial), 675
ownership, disadvantageous aspects of, by Sydney Brooks, 587
utility commission, is it a necessity? (editorial), 783
utility commissions, states where they have jurisdiction, 760
utility law annuls conflicting franchise provisions, says Wisconsin court, 567
utility law declared success, by J. C. Crowley, 251
utility law, Pacific Bell attacks constitutionality of, in California, 800
utility law, Washington court sustains over franchise provisions, 496, (editorial), 489
utility, relations of public to, by George B. Cortelyou, 568

Q

Quebec, views of granite excavation for conduits in, 139

R

Rate policy, utility expansion dependent on nation's, 107
Rates, raising telephone, in a rural community, by W. S. Clay, 557
U. S. Supreme Court sustains city's power to regulate (Louisville), 732
Railway telephone engineering, ethics of, (editorial), 551
Railway telegraph superintendents meet at Chicago, 421
annual convention of, 707
meet, features of, 681
report of convention of, 737
Regulation, South Dakota telephone legislation and, by Judge C. B. Kennedy, 145
Relations of the chief operator to the force, the, by Percy Redmund, 632
Relay, use of the main line, in telephone selector operation, by W. W. Ryder, 740
Replacement and depreciation of growing telephone plants, by Burke Smith, 526
Reservoir, construction over surface of, 49
Resistance of a common return wire, by A. B. Smith, 213
Return on utility investments, proper, Judge Sanborn, in Minnesota rate case, (editorial), 296
on utility investment, by Geo. W. Perkins, (editorial), 551
Review of conditions in Indiana and Indianapolis, by N. G. Hunter, 648
Rochester Board, Federal interests on, 204
Independent ignores Federal offer of $100,000, 233

S

St. Louis Terminal telegraph and telephone facilities, by F. E. Bentley, 706
San Francisco, Bell charged with bad practice at, 617
Home-Bell merger to be contested, 413
Home said sold to Bell, 367
merger restrained by injunction, 440
merger, editorial comment on, (editorial), 459
must work toward municipal system, 712
suit brought at, to prevent merger, 622
suit against Bell at, deferred, 502
supervisors delay action on merger at, 4
votes two to one to buy Home for municipal plant, 463
San Francisco's automatic P. B. X. exchanges, by Gerald Deakin, 491-530
Santa Fe Railway, what the telephone has done for the, by L. M. Jones, 703
Seattle, merger injunction dissolved at, 367
Securities, advantages of the small bond, (editorial), 459
eloquent endorsement of, at Columbus, 519
telephone, lead in upward tendency, (editorial), 490
telephone, vs. real estate mortgages, (editorial), 490
telephone, Moody's magazine on, 568
value of telephone, (editorial), 357
Service, making operators speech a part of good, by J. L. Turner, 17
Oregon Independent given credit for improved, 15
short distance value of, (editorial), 100
Selecting devices, automatic, and multiple boards, by Alfred H. Dyson, 651
Sioux City Independent buys Bell and New State, 23
South Dakota, telephone legislation and regulation in, by Judge C. B. Kennedy, 145
Independents will urge large toll fees, 120
Spain, resume of telephone situation in, 414
Speech, making operators' a part of good service, by J. L. Turner, 17
"Stop, Look and Listen!" Iowa convention address, by Manford Savage, 437
Storage battery end cells, their kinds and uses, by A. B. Smith, 708
overcharge, definition of, 76
Storms, views after, in different parts of country, 467
Straining A Point, by J. C. Kelsey, 658
Stromberg-Carlson Tel. Mfg. Co., statement for 1911, 318
Summerville, Pa., Independent installs new common battery switchboard, 81
Supervision, federal, of corporations advocated by Herbert Knox Smith, (editorial), 459

NOV 18 1912
119632
XUM

T

Technical conference, proposed, at national convention, 73
conference of national association discusses automobiles and motorcycles, 243
Telegraph, government ownership of, (editorial), 263
Hitchcock recommends government ownership of, 69
Taft opposes government ownership of, 270
Telephone development on Chicago Great Western Railway, by W. L. Cook, 677
accounting suggestions for small companies, 306
accounting systems, report on Comparing Wisconsin with Interstate Commerce Comm. Plan., by Wm. A. Frame, 215.
Future of, by J. C. Kelsey, 171
importance of, in power system operation, 237
line across the desert, by C. L. Endholm, 108
newspaper, the, by Arthur F. Colton, 391
operation, outlook for, in 1912 (editorial), 202
in foreign countries, the, 414
portable, extending the use of the, (editorial), 643
situation and how it should be faced, by Gen. A. A. Godard, 210
situation, how Ohio is trying to solve the, by S. E. Ward, 207
statistics of the world—Bell pamphlet, 785
Ten Years Ago, 268, 528, 776
Testing dry cells, standard methods recommended for, 688
Thou Shalt not Steal, by J. C. Kelsey, 618
Toll fees, South Dakota Independents will urge larger, 120
Topeka Independent sold to Bell, 332
Transmission, discussion of—Co-operation of departments, by Bancroft Gherardi, 468
Tri-State Tel. & Tel. Co., of Minneapolis, statement for 1911, 269
Troubleman, letters to, from an old timer, by Fred Dewey, 461
Trust, The, of Trusts, by J. C. Kelsey, 297

U

United States Independent Telephone Co., warning in decision against promotors of, 495, (editorial), 489
United States Telephone Company's exclusive toll contract sustained in Ohio, 762
Uruguay, resume of telephone situation in, 416
Utility expansion dependent on nations' rate policy, 107

W

Wausau, (Wis.) Telephone Co., history of, by Howard I. Crawford, 755
Ways of the Trust, The, by J. C. Kelsey, 361
Western Pennsylvania association holds meeting at Pittsburgh, 140
Union cable merger accomplished, 335
Weston cell value, international committee on, 647
What Is It? by J. C. Kelsey, 768
What Is the Answer? by J. C. Kelsey, 594
Wisconsin association convention, 209
accounting system approved by commission, 277
compensation act and women's labor law, 305
Women's labor law and Wisconsin compensation act, 305

AUTHOR'S INDEX

Bailey, Marshall Jewell, Some points on securing business over the telephone, 583
Bentley, F. E., St. Louis terminal telegraph and telephone facilities, 706
Bodemann Wilhelm, Druggists' association declares pay stations profitable, 179
Brandeis, Louis D., There is no natural monopoly, 5
Brooks, Sydney, Aspects of Public Ownership, 587
Clausen, H. P., Reading profits and loss from operator's load line, 141
Clay, W. S., Raising telephone rates in a rural community, 557
Colton, Arthur F., The telephone newspaper, 391
Cook, W. L., Telephone development on Chicago, Great Western Railway, 677
Courtelyou, George B., relations of public to utility, 568
Crawford, Howard I., History of Wausau Telephone Co., 755
Crowley, J. C., Operation under public utility law declared success, 251
Deakin, Gerald, San Francisco automatic P. B. X. exchanges 491-530
Dewey, Fred, Letters from an old timer to the troubleman, 461
Dyson Alfred H., Automatic selecting devices and multiple boards, 651
Earle, Geo. H., Monopoly a menance for centuries, 135
Edwards, S. R., Importance of the telephone in power system operation, 237
Endholm, C. L., Running a telephone line across the desert, 108
Fowle, Frank F., Loading coils for phantomed long distance lines, 10
Frame, Wm. A., Report on proposed telephone accounting systems, 215
Gherardi, Bancroft, Discussion of transmission—Co-operation of departments, 468
Glandon, Ed. D., What the Illinois toll clearing house is accomplishing, 239
Godard, Gen. A. A., What is the situation and how should it be faced? 210
Goodrich, W. F., Need of accurate and uniform telephone accounting, 247
Griswold, A. H., Telephone pole line design west of the Rockies, 611
Griswold, L. W., Galloping Telephony, 521
Hamilton, W. C., Dispatching system on the Copper Range Railroad, 313
Holland, John D., A story of Independent success at Geneva, N. Y. 336
Automobile truck in construction work, 806
Pioneer telephone building in the Inland Northwest, 445.
Hunter, N. G., A review of conditions in Indiana and Indianapolis, 648
Jones, Bassett, Jr., and Henry C. Meyer, Jr., Cabling a large office building, 766
Jones, L. M., What the telephone has done for the Santa Fe Railway, 703
Kelsey, J. C., After the Ball, 795
Bell Annual Report, The, 442
Campaign Bogey, The, 254
Convention Papers, The, 273
Correcting a Great Wrong, 472
Disenchantment of America, The, 560
Future of the Telephone, The, 171
Is Anything Wrong? 500
It is Wise to Yield, 103
June Madness, 734
Last Week's TELEPHONY, 71.
Let George Do It, 7
March of Progress, The, 45
Mending Our Ways, 333
Mere Size, 535
Municipal Success, A, 409
One Telephone System, (Des Moines), 683
Peculiar Sales Methods, 710
Pleasing Everbody, 203
Straining a Point, 658
Thou Shalt not Steal, 618
Trusts of Trusts, The, 297
Ways of the Trust, The, 361
What Is it? 768
What is the Answer? 594
Word to the Convention, A, 131
Knowlton, H. S., Bell telephone rate investigation in Massacnusetts, 341
Kimball, Walter, A remarkable engineering feat in exchange building, Birmingham, Ala, 553
Kennedy, Judge, C. B., Telephone legislation and regulation in South Dakota, 145
MacDonald, J. E., Practical joint pole construction for public utilities, 725
Meyer, Henry C. Jr., and Bassett Jones Jr., Cabling a large office building, 766
Redmund, Percy, The relations of the chief operator to the force, 632
Robinson, Percy G., unique municipal long distance telephone system, 431
Ryder, W. W., Use of the main line relay in telephone selector operation, 740
Sheldon, A. F., The science of business building, 340
Smith, A. B., An experiment on resistance of a common return wire, 213
Storage battery end cells, 708
Smith, Burke, Depreciation and replacement of growing telephone plants, 526
Savage, Manford, The dawn of new era in telephony, 167
Importance and fair future of Independent industry, 655
"Stop, Look and Listen," address delivered at Iowa convention, 437
Turner, J. L., Operator's speech a part of good service, 17
Ward, S. E., How Ohio is trying to solve the telephone situation, 207
Yore, B., Some new stunts in cable testing, 181

XUM